

FIG. 1

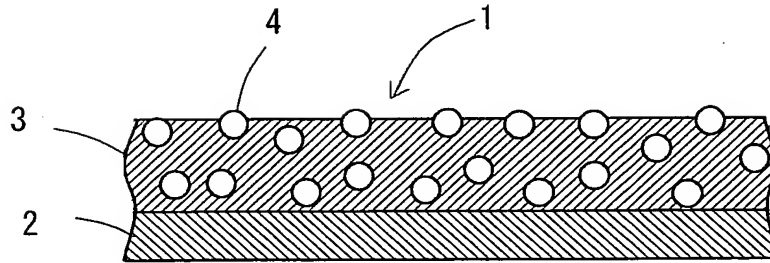
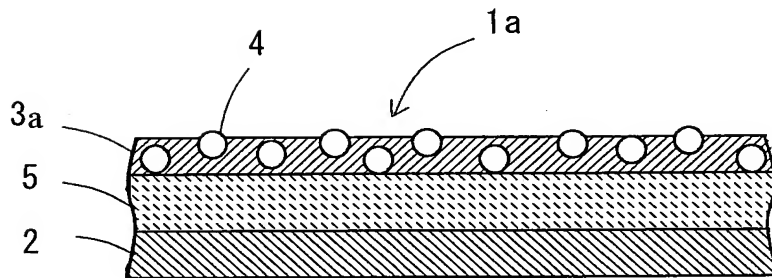
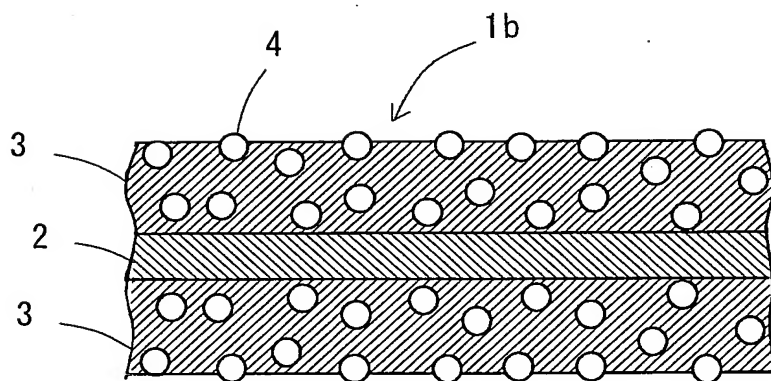


FIG. 2



**FIG. 3**



**FIG. 4**

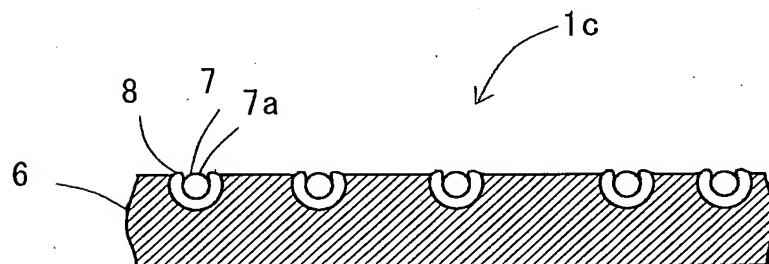
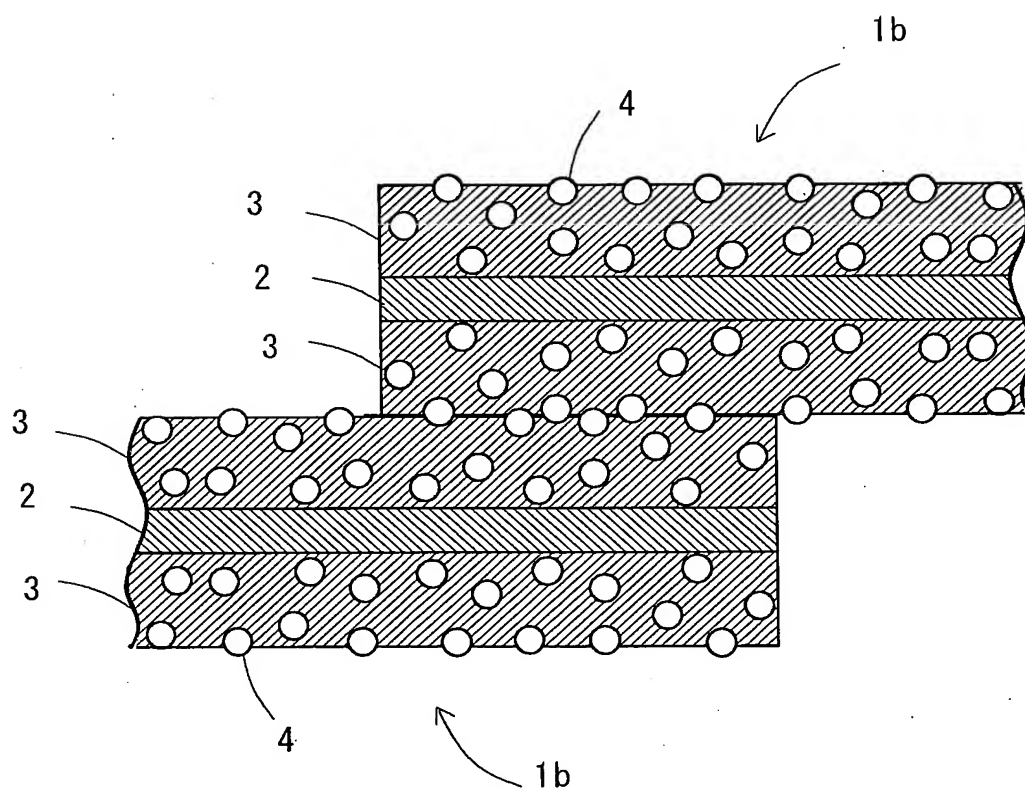


FIG. 5



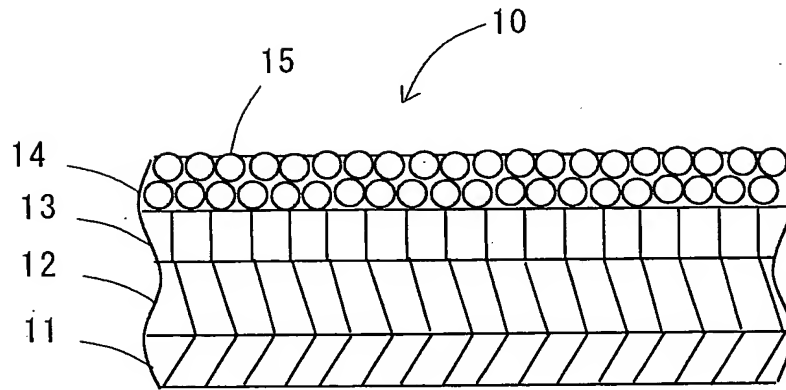
# FIG. 6

	Sample	Solution	Species of photocatalyst	(PVC+PMA) / photocatalyst	Evaluation 1 (Silver Nitrate)		Evaluation 2 (Peeling test)	Evaluation 3			
					Photo-redox reaction	ΔE		Mass change			
								after 1hr	after 24hrs	after 1hr	after 24hrs
Example 1	a	A	Apatite-coated TiO <sub>2</sub>	90/10	○	2.3	○	1mg	2mg	0%	+4%
Example 2	b	B	Apatite-coated TiO <sub>2</sub>	80/20	○	5.0	○	1mg	3mg	0%	0%
Example 3	c	C	Apatite-coated TiO <sub>2</sub>	60/40	○	6.1	○	2mg	2mg	+4%	+4%
Example 4	d	D	Apatite-coated TiO <sub>2</sub>	40/60	○	13.5	Δ	1mg	2mg	0%	+4%
Example 5	e	E	Apatite-coated TiO <sub>2</sub>	30/70	○	16.2	x	1mg	2mg	0%	+4%
Comparative Example 1	f	-	None	100/0	x	-	○	1mg	3mg	-4%	-12%
Comparative Example 2	g	G	TiO <sub>2</sub>	90/10	○	3.6	○	1mg	3mg	0%	0%
Comparative Example 3	h	H	TiO <sub>2</sub>	80/20	○	7.2	○	1mg	5mg	0%	-8%
Comparative Example 4	i	I	TiO <sub>2</sub>	60/40	○	14.9	○	0mg	6mg	0%	-12%
Comparative Example 5	j	J	TiO <sub>2</sub>	40/60	○	17.2	x	2mg	8mg	-4%	-20%
Comparative Example 6	k	K	TiO <sub>2</sub>	30/70	○	24.4	x	0mg	8mg	0%	-20%

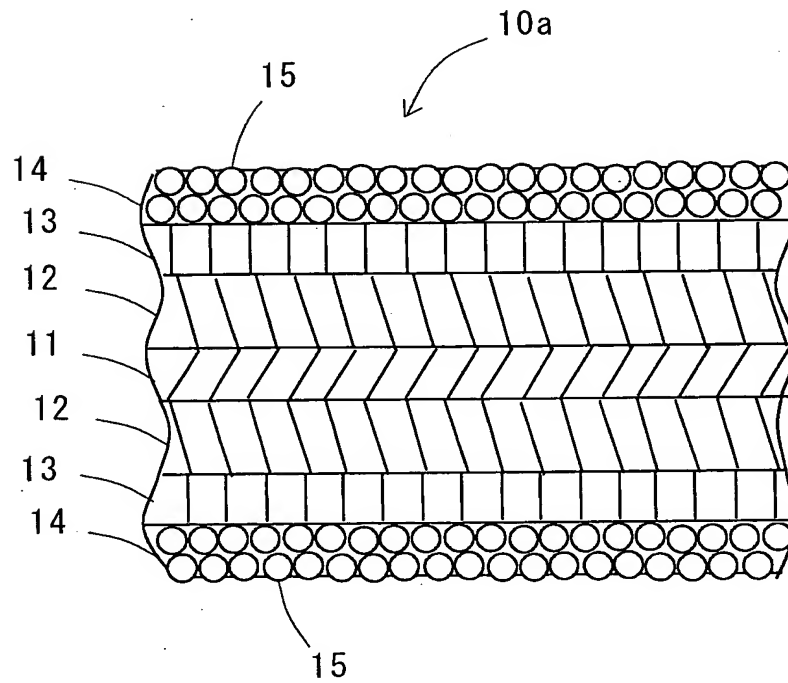
FIG. 7

	Sample	Solution	Species of photocatalyst	EFP /photocatalyst	Evaluation 1 (Silver Nitrate)		Evaluation 2 (Peeling test)	Evaluation 3			
					Photo-redox reaction	$\Delta E$		Mass change			
								after 1hr	after 24 hrs	Mass ratio after 1hr	Mass ratio after 24 hrs
Example 6	m	M	Apatite-coated $TiO_2$	90/10	○	5.6	○	0mg	0mg	0%	0%
Example 7	n	N	Apatite-coated $TiO_2$	80/20	○	6.6	○	0mg	0mg	0%	0%
Example 8	p	P	Apatite-coated $TiO_2$	60/40	○	14.0	○	0mg	0mg	0%	0%
Example 9	q	Q	Apatite-coated $TiO_2$	40/60	○	21.4	△	0mg	0mg	0%	0%
Example 10	r	R	Apatite-coated $TiO_2$	30/70	○	22.2	×	0mg	0mg	0%	0%
Comarative Example 7	s	-	None	100/0	×	-	○	0mg	0mg	0%	0%

**FIG. 8**



**FIG. 9**



# FIG 10

